

REMARKS

Claims 1, 4-8, 10-20, 22-24, 27-31, 33-43, and 45-50 are pending in the present application. Claims 1, 3-8, 10-20, 22-24, 26-31, 33-43, and 45-50 were presented for examination. Claims 3 and 26 were cancelled by amendment.

In the office action mailed July 7, 2006 (the "Office Action"), the Examiner rejected claims 3-8, 10-13, 18-20, 22-24, 26-31, 33-36, 41-43, and 45-50 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,578,005 to Lesaint *et al.* (the "Lesaint patent"), in view of U.S. Patent Application Publication No. 20010049619 to Powell *et al.* (the "Powell reference"). The Examiner rejected claims 14-17 and 37-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Lesaint patent, in view of the Powell reference, and in further view of U.S. Patent No. 5,615,121 to Babayev (the "Babayev patent").

An information disclosure statement was submitted on July 11, 2006 (the "IDS"). Applicants request the Examiner consider the references cited in the Form PTO-1449 of the IDS and provide the attorney of record with a signed and initialed copy of the Form PTO-1449.

The remarks from the previously submitted responses are maintained, and incorporated into the present remarks.

Claims 1, 6, 13, 24, 29, 36, and 47 are patentable over the Lesaint patent in view of the Powell reference. Claims 1, 6, and 47 have been amended to recite a particular set of appointment windows included in the window hierarchy, namely, an all day appointment window, aggregate appointment windows, and basic appointment windows. Claims 1, 24, and 47 have been amended to also recite the particular relationship between the defined appointment windows. The Examiner argues that a window hierarchy is disclosed by the Powell reference. The Lesaint patent is cited by the Examiner as teaching a window hierarchy including an all day appointment window, aggregate appointment windows, and basic appointment windows is taught by Lesaint. See the Office Action at pages 4 and 5.

The Examiner argues that the bands 20 of time windows described in the Powell reference and shown in Figure 2 represent assignment of a window hierarchy to each area. As discussed in the previously filed responses, bands 20-26 of concentric circles around a central depot represent different ranges of time. It is assumed that field technicians leave from the central depot at the beginning of a work day and return to it at the end of the workday. The

example described in the Powell reference at paragraph 41 uses two-hour bands of time, with later time ranges assigned to the bands further out from the central depot. A customer request is scheduled by identifying the band in which the customer is located. The time range associated with the band in which the customer is located is used as the time window for scheduling the customer request.

The Examiner further argues that the “window hierarchy” described by the Powell reference would be modified by teachings of the Lesaint patent to teach or suggest a window hierarchy that includes an all day appointment window, aggregate appointment windows, and basic appointment windows. The Examiner cites to material in column 17 and 21 of the Lesaint patent for support of the argument. See the Office Action at page 5. The material in column 17 does not describe an all day appointment window or aggregate appointment windows, but describes the effect of moving scheduled appointments during optimization has on calculation of an objective function. The particular objective function described in the cited material is a “simulating annealing” model. See col. 16, lines 23-29. The material that purportedly describes an “all day appointment window” actually describes a particular example of moving two tasks to save ten minutes, and the resulting improvement (i.e., reduction) in the scheduling cost. See col. 17, lines 30-38. The cited material does not describe any type of all day appointment window. The material that the Examiner cites as teaching aggregate appointment windows actually describes an example of calculating a value (i.e., the ratio of the difference between the expected time of meeting the target and the target itself, and the maximum time that the expected time may exceed the target) that is used in the objective function. The particular example identifies a first task that is already scheduled to begin between 10:30 a.m. and 1:00 p.m. with an expected arrival time of 11:30 a.m., and a second task that has the same ratio as the first task, but is to be completed by 5:00 p.m. but is expected to be completed between 12:00 p.m. and 2:00 p.m. The material does not describe any appointment windows that are analogous to an aggregate appointment window. Despite the Examiner’s assertion, the Lesaint patent does not teach a window hierarchy as recited by claims 1, 24, and 47.

Additionally, as previously discussed, the “window hierarchy” identified in the Powell reference by the Examiner are concentric circles of time bands centered around a central depot. The “all day appointment window and aggregate appointment windows” identified in the

Lesaint patent by the Examiner are examples of scheduled tasks. No one ordinarily skilled in the art would be motivated to combine the particular examples of the Lesaint patent with the concentric time bands of the Powell reference because it makes no sense to do so. The Powell reference provides examples of the time bands for the concentric rings shown in Figure 2. The example tasks described in Lesaint are not associated with any geographic location. Modifying the concentric rings of the Powell reference to include the tasks already scheduled as described in the Lesaint patent would create inconsistency with the time assignment for each band if the tasks are not geographically located according to the concentric rings. For example, the task beginning between 10:30 and 1:00 p.m. would modify the concentric ring corresponding to the time range, only if the geographic location of the task fits within the assigned time bands of the concentric rings. If, however, the task is located nearer or further away than the band assigned to cover that time range, all of the time ranges of the bands would need to be modified, which may create inconsistencies between other tasks that are appropriately assigned to the concentric bands. Thus, no one ordinarily skilled in the art would combine the teachings identified by the Examiner because doing so results in an inoperable scheduling system.

Moreover, the combination of the teachings of the Lesaint patent and the Powell reference do not teach or suggest the relationship of the all day appointment window, the aggregate appointment windows and the basic appointment windows. As recited in claims 1, 24, and 47, some of the basic appointment windows are grouped into aggregate appointment windows and aggregate appointment windows and remaining basic appointment windows are grouped into the all day appointment window. As described in the present application at paragraph 23 and illustrated in Figure 4 (with reference to U.S. Patent Application Publication No. 2002/0010610), a window hierarchy is a set of appointment windows that is grouped to form the window hierarchy. In one embodiment, referencing Figure 4, the set of appointment windows includes an all day appointment window (e.g., from 8 a.m. to 6 p.m.), aggregate appointment windows (e.g., the morning or afternoon), and basic window appointments (e.g., 9 a.m. to 11 a.m., or 1 p.m. to 2 p.m.). Customers are hierarchically offered the different appointment windows by a customer service representative (CSR) in the order of an all day appointment, and if the appointment is not acceptable, the CSR offers an aggregate window appointment, and then finally a basic window appointment. As further described for the

embodiment described at paragraph 23 and illustrated in Figure 4, the basic building blocks of the Window Hierarchy are a set of contiguous basic windows that span the working day. Subsets of these basic windows are grouped into larger aggregate windows. The aggregate windows and any basic windows not belonging to an aggregate window are grouped into an all day window. Neither the Powell reference or the Lesaint patent teach the appointment window relationship recited in claims 1, 24, and 47.

In summary, claims 1, 24, and 47 are patentable over the Lesaint patent in view of the Powell reference because neither the Lesaint patent or the Powell reference describe the limitation of a window hierarchy including an all day appointment window, aggregate appointment window, and basic appointment windows. Additionally, claims 1, 24, and 47 are patentable because the teachings of a “window hierarchy” identified in the Powell reference by the Examiner would not be modified according to the teachings of “an all day appointment window, aggregate appointment windows and basic appointment windows” described in the Lesaint patent application. Finally, even if the Examiner’s characterization are assumed to be accurate for the sake of argument, and one ordinarily skilled in the art would be motivated to combine the teachings of the Lesaint patent and the Powell reference, the resulting combination fails to describe an appointment window relationship where basic appointment windows are grouped into aggregate appointment windows and aggregate appointment windows and remaining basic appointment windows are grouped into the all day appointment window as recited in claims 1, 24, and 47.

For the foregoing reasons, claims 1, 24, and 47 are patentable over the Lesaint patent in view of the Powell reference, and the Examiner’s rejection of these claims under 35 U.S.C. 103(a) should be withdrawn.

Claims 6, 13, 29, and 36 have been amended to further define the splittable work order as having a job duration *required* to complete the splittable work order over a *plurality of different days*.

The Examiner argues that the Lesaint patent teaches splittable work orders as recited in claims 6, 13, 29, and 36. See the Office Action at page 3. However, the “splittable work order” described in the Lesaint patent is conditionally split between two days. In particular, “*if a task could overrun an individual’s overtime limit then it is only scheduled if the*

task can be split.” See col. 14, lines 30-33, see also col. 24, lines 1-3. As described in the Lesaint patent, a task is split only if it violates an overtime limit. Otherwise, “[i]f the task may be completed within an individual’s overtime limit then it may be scheduled by the pre-scheduler.” See col. 14, lines 28-30. That is, the task will be scheduled to be completed in one day. In contrast, the “splittable order” recited in claims 6, 13, 29, and 36 are required to be split over a plurality of different days, unlike the task split in the Lesaint patent. The Powell reference also fails to describe a “splittable order” as recited in claims 6, 13, 29, and 36.

For the foregoing reasons, claims 6, 13, 29, and 36 are patentable over the Lesaint patent in view of the Powell reference. Therefore, the Examiner rejection of claims 6, 13, 29, and 36 under 35 U.S.C. 103(a) should be withdrawn.

Claims 2-5, which depend from claim 1, claims 7, 8, and 10-12, which depend from claim 6, claims 18-20, 22, and 23, which depend from claim 13, claims 27 and 28, which depend from claim 24, claims 30, 31, and 33-35, which depend from claim 29, claims 41-43, 45, and 46, which depend from claim 36, and claims 48-50, which depend from claim 47, are similarly patentable based on their dependency from a respective allowable base claim. Therefore, the rejection of claims 4, 5, 7, 8, 10-12, 18-20, 22, 23, 27, 28, 30, 31, 33-35, 41-43, 45, 46, and 48-50 under 35 U.S.C. 103(a) should be withdrawn.

As previously mentioned, claims 14-17 and 37-40 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Lesaint patent, in view of the Powell reference, and in further view of the Babayev patent.

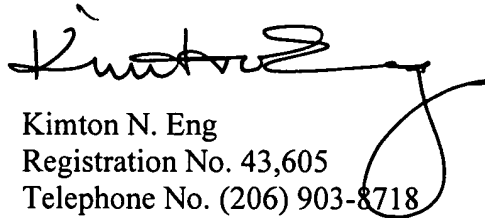
The Babayev patent has been cited by the Examiner for teaching (1) informing the customer service representative of the reason either validation failed; (2) providing the customer service representative with an indication that the reason for the failure was the result of insufficient projected service resources; and (3) providing the representative with the degree to which the requested appointment windows are overbooked. See the Office Action at pages 15 and 16. Even if it is assumed for the sake of argument that the Examiner’s characterizations of the Babayev patent are accurate, the Babayev patent fails to make up for the deficiencies of the Lesaint patent and the Powell reference, as previously discussed with reference to claims 1, 6, 13, 24, 29, 36, and 47. Consequently, the combined teachings of the Lesaint patent, the Powell reference, and the Babayev patent fail to teach or suggest the combination of limitations recited

by the respective claim. Therefore, the rejection of claims 14-17 and 37-40 under 35 U.S.C. 103(a) should be withdrawn.

All of the pending in the present application are in condition for allowance. Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

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